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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,942	11/23/2005	Chung-hak Lee	110989-0004	4080
23429 7590 03/07/2011 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER FISHER, MICHAEL J				
ART UNIT		PAPER NUMBER		
3689				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,942

Applicant(s)

LEE, CHUNG-HAK

Examiner

MICHAEL J. FISHER

Art Unit

3689

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-942)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PAT 6,577,946 to Myr.

As to claim 1, Myr discloses a method for obtaining traffic data using billing information of cellphones (user information is billing information), that receives call data (fig 1), extracts unique data (position data, fig 1), the system tracks position and speed (fig 4) and determines average speed (fig 16), the "terminals" are the cell phones and the calls are made on the highway (col 9, lines 13-14). Myr does not specifically disclose using received call data for gathering the information, it would have been obvious to one of ordinary skill in the art to use call data as Myr uses cell phone signal information and calls would be included in this data.

As to claims 2, 20, the system is used on highways (col 9, lines 13-14), where they are built would be a matter of obvious engineering design choice and would not render the instant application patentably distinct.

As to claim 19, the handoff would be to the next receiver.

As to claims 3,23, the terminals have identification numbers (Road Intersection Node, col 7, lines 11-18).

As to claim 4, Myr does not teach the specific time interval, however, it would have been obvious to one of ordinary skill in the art to use 30 second intervals as a matter of obvious, engineering design choice.

As to claim 5, it would be obvious to send a wake-up signal to ensure the system is working properly.

As to claim 6, the data is extracted on a section by section basis and for all sections (fig 12), the number would be a matter of statistical choice and would not render the instant invention patentably distinct.

As to claims 7,27, the number and location of stations would be a matter of obvious, engineering design choice and would not render the instant invention patentably distinct.

As to claim 8, there is at least one sample object (various "CP"s, as seen in fig 12).

As to claims 9,10,11, tracking lower priority objects is terminated (fig 5), the samples are clustered (fig 11).

As to claims 12,24, Myr does not teach exactly how speed information is determined, however, dividing distance traveled by time unit is how speed is determined (miles/hour), therefore, it would have been obvious to use this formula as it is old and well known to work.

As to claim 13, Myr does not teach showing the maximum speed when no vehicles are tracked on a road, however, it would be obvious to one of ordinary skill in the art to do so as, without vehicles on the road, there could be no congestion and therefore, any vehicles traveling down a deserted road could go the maximum speed if so desired.

As to claim 14, Myr discloses reference times added to the time (top row in fig 16).

As to claims 15 and 29, the reference time would be a matter of obvious engineering design choice and would not render the instant invention patentably distinct.

As to claims 16,17,22, the vehicles are not tracked when the signal is not received by one in the system, thereby meeting the limitations as claimed.

As to claim 18, the base stations are for their area, thereby meeting the limitations as claimed.

As to claims 21,25,26, the system would terminate when no signal is received, thereby meeting the limitations as claimed.

As to claim 28, the base stations are for their area, thereby meeting the limitations as claimed.

As to claim 30, the system is used on highways (col 9, lines 13-14).

As to claim 31, the base stations are for their area, thereby meeting the limitations as claimed.

As to claim 32, Myr does not teach the specific time interval, however, it would have been obvious to one of ordinary skill in the art to use 5 minute intervals as a matter of obvious, engineering design choice.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. FISHER whose telephone number is (571)272-6804. The examiner can normally be reached on Mon.-Fri. 7:30am-5:00pm alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Fisher/
Examiner, Art Unit 3689
MF
2/27/11